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Lessons from the TAPS study

Management of medical emergencies

The Threats to Australian Patient Safety (TAPS) study collected 648 anonymous reports about threats to patient safety by a representative random sample of Australian general practitioners. These contained any events the GPs felt should not have happened, and would not want to happen again, regardless of who was at fault or the outcome of the event. This series of articles presents clinical lessons resulting from the TAPS study.

Clinical lesson

Medical emergencies do happen in general practice. All GPs need to be skilled in the management of medical emergencies, which includes having up-to-date knowledge and skills in emergency life support and cardiopulmonary resuscitation. All general practices need to ensure that equipment required for the management of emergencies is readily available and regularly reviewed to ensure it is up-to-date and fully operational.

Case study

A teenage boy fell from his bike and hit his head on concrete but did not lose consciousness. He then had an asthma attack. He used his salbutamol inhaler and managed to walk to a relative's house. The relative took him immediately by car to the local general practice.

On arrival at the general practice, the child had a cardiopulmonary arrest. The GP attempted unsuccessfully to intubate the patient. An ambulance was called and on arrival the ambulance officers noted that the child did not have a clear airway, the GP was only performing cardiac massage and it appeared that no oxygen administration or airway maintenance had been attempted following the failed attempt at intubation.

The child was intubated by the ambulance officers and transferred to the local emergency department where the GP who made this report was working. The child was found to have sustained a hypoxic brain injury.

Comment

This report illustrates the need for all GPs to be well trained in cardiopulmonary resuscitation and the management of other important medical emergencies, and to maintain these skills over time.

■ **The Royal Australian College of General Practitioners (RACGP) Continuing Professional Development Program for Australian general practitioners now requires that GPs regularly update their skills at cardiopulmonary resuscitation. The TAPS study included a small number of cases that highlighted the need for GPs to maintain their knowledge about the management of medical emergencies and to review the equipment available in their practices for supporting the treatment of seriously ill people.**

Errors relating to the management of medical emergencies and the maintenance of equipment

This tragic case was one of only two examples among the 648 reports in the TAPS study¹⁻³ where an acutely unwell patient was reported to have been inappropriately managed due a deficiency in a GP's knowledge or skills. The other report concerned a patient in an aged care facility having recurrent seizures where the attending GP was unsure of the appropriate principles of management. Although reports of errors in managing emergencies were uncommonly reported, extremely serious potential for harm is highlighted in these cases.

In a further small number of reports, equipment problems and time management challenges were identified as potential safety threats for people requiring acute care. For example, in some reports people presenting with acute symptoms such as

chest pain, headache or abdominal pain, were reported to have been inadequately assessed due to time pressures. Examples of equipment problems included empty oxygen cylinders in the practice, the absence of a paediatric blood pressure measurement cuff required to appropriately assess and monitor a child who had collapsed, and a malfunctioning patient controlled analgesia device in a rural hospital setting.

The RACGP *Standards for general practices*⁴ has a comprehensive list of the equipment required in any general practice for resuscitation and the management of other medical emergencies. It also recommends that each practice has a protocol for reviewing the maintenance of its emergency life support equipment. Guidelines are available on the RACGP website for the emergency treatment of important clinical conditions, such as asthma.⁵

There was no previous research identified in the medical literature with a specific focus on patient safety relating to acute care in the general practice setting. The Australian critical incident study conducted in the mid 1990s made reference to equipment failures including poor maintenance and failure to check equipment before use and identified the problem of empty oxygen cylinders not being refilled.^{2,6}

Lessons in preventing errors in the management of acutely ill people

- Ensure all GPs maintain their emergency life support skills
- Ensure all staff are trained in basic CPR
- Display a CPR protocol or poster in your practice waiting area
- Do not attempt procedures such as intubation unless you are properly trained and have kept your skills up-to-date – remember that a bag and mask can effectively maintain a person's airway while an ambulance is called
- Take the time required to adequately assess all people presenting to your practice with symptoms of potentially life threatening conditions such as chest pain, respiratory distress, abdominal pain or head injury
- Be vigilant in the maintenance of your practice's emergency life support equipment – have a protocol for reviewing the maintenance of equipment and a staff member assigned to its routine checking. Ensure that the protocol is followed and documented

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